

Work Order ID 61341

August 18, 2010 3:34:21 PM



Page 1

Item ID: D2741

Accept



Setup Start



Revision ID:

Stop



Item Name: Blade, 350 Skidtube

Start Date: 18/08/2010 Start Qty: 35.00



Cust Item ID:

Required Date: 31/08/2010 Req'd Qty: 35.00

Customer:

Reference:

Ref 10-08-18

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D2741

Rev C

100

0.00



BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blanks 13.850" long +0.063" -0.000"

SL 10/10/12

35

Ø

110

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1-Machine per folio FA108

SL 10/10/12

35

Ø

120

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

SL 10/10/12

35

Ø

Work Order ID 61341

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Item ID: D2741

Accept



Setup Start



Revision ID:

Stop



Item Name: Blade, 350 Skidtube

Start Date: 18/08/2010 Start Qty: 35.00



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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

Outsource process - Heat Treat

0.00



Outsource1

Memo

0.00

Outsource process - Heat Treat

Issue P/O: 12750 ☐ Harden material as per Dwg D2741 ☐ Min. Ultimate Tensile Strength = 152 ksi (34-40 HRC) ☐ Min. Yield Tensile Strength = 141 ksi ☐ Test report or Certification required

230X 1Y37 Co 1Y18 C2 10/10/15 (35)

170

Receive & Inspect for Damage & Mat'l Certs

0.00



Packaging

Memo

0.00

Packaging

Ensure Test report or Certification attached

C2 10/10/15 (35)

180

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

35

10/11/16

Work Order ID 61341

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Item ID: D2741

Accept



Setup Start



Revision ID:

Stop



Item Name: Blade, 350 Skidtube

Start Date: 18/08/2010 Start Qty: 35.00



Cust Item ID:

Required Date: 31/08/2010 Req'd Qty: 35.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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220

Identify as per dwg & Stock Location: 468

0.00



Packaging

Memo

0.00

Packaging

10/12/3 SP 350

230

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/12/07
mf
10-12-03

Picklist Print

August 18, 2010 3:34:20 PM

Page 1

Work Order ID: 61341



Parent Item: D2741



Parent Item Name: Blade, 350 Skidtube

Start Date: 18/08/2010

Required Date: 31/08/2010

Start Qty: 35.00

Required Qty: 35.00

Comments: IPP Rev: D 00.11.15 ☐ Removed P/O turning - in house process ☐ EC
 IPP Rev: E 06-03-20 As Per Rev C JLM
 IPP Rev: F 06.04.20 ☐ Added grinding after heat treating ☐ EC ☐

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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M4130NB0.500X03.000		Purchased	No			100	f	24.0000	1.1541	42.51947			
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4130 Bar 0.500 x 3.00



SL 10/10/07

Location

Loc Qty

Loc Code

MAT034

24

114044

24

115686

115545

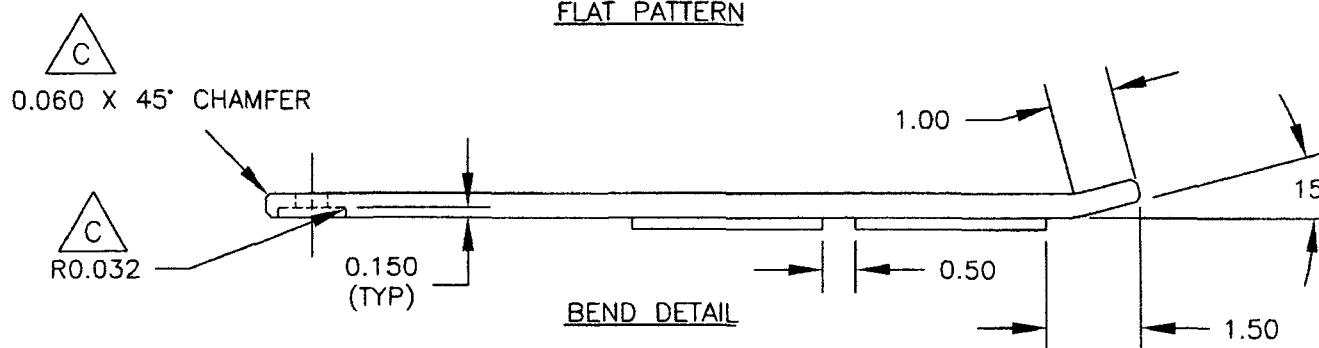
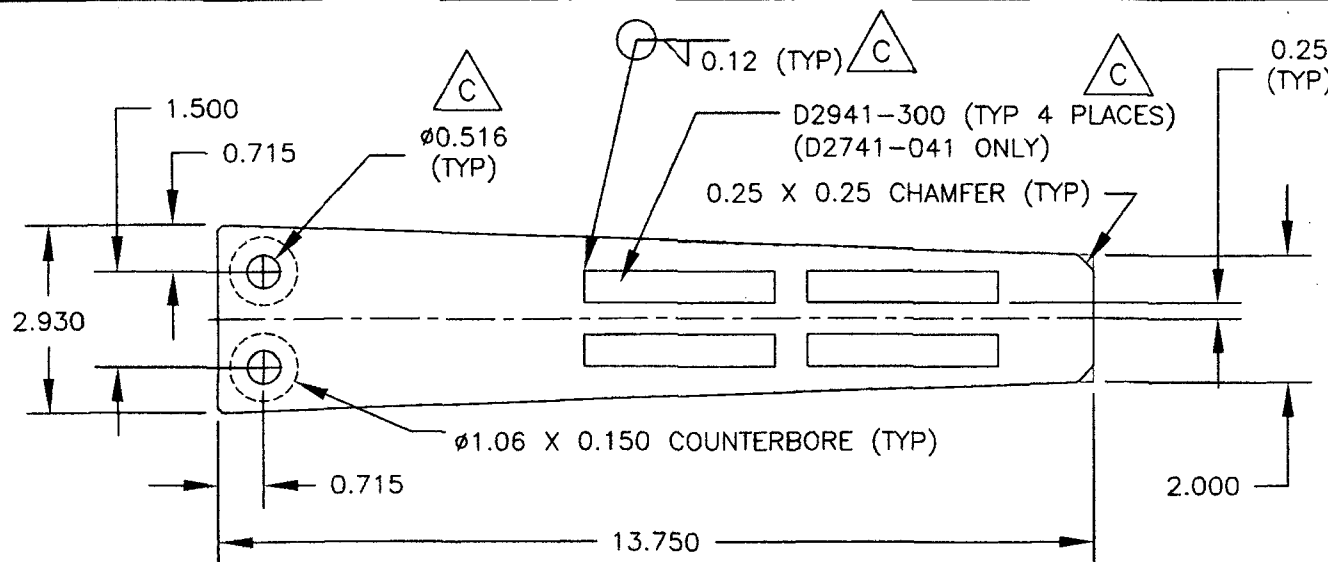
18.9

23.625

DART

RELEASED
06 02 07

DESIGN	DRAWN BY	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
<i>HH</i>	<i>HH</i>	DRAWING NO.	REV. C
CHECKED <i>HH</i>	APPROVED <i>HH</i>	D2741	SHEET 1 OF 1
DATE 06.01.12	TITLE BLADE	SCALE 1:3	
A	98.04.16	NEW ISSUE	
B	98.09.01	CHANGE C'SINK TO C'BORE	
C	06.01.12	LARGER HOLE, ADD RADIUS AND CHAMFER ADD -041/-043 OPTIONS	



w/o 6134

D2741 BLADE

- 1) MATERIAL: AISI 4130 STEEL 0.375 THICK
MIN. ULTIMATE TENSILE STRENGTH = 152 ksi (34-40 HRC)
MIN. YIELD TENSILE STRENGTH = 141 ksi
- 2) FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES 0.030 TO 0.060
- 6) TO MAKE D2741-041, WELD D2941-300 (4) AS SHOWN ABOVE.
REMOVE POWDER COAT FROM SURFACE OF D2941-300
- 7) TO MAKE D2741-043, WELD 7560 HARDCOAT ROD INSTEAD OF D2941-300





Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO12750

Purchase Order Date 10/15/10

PO Print Date 10/15/10

Page Number 1 of 1

Order From :

VC-MET004

METCOR INC.
560 BOUL. ARTHUR SAUVE
SAINT-EUSTACHE, QC J7R 5A8
CA

Contact Name

Vendor Phone

450 473 1884

Vendor Fax

450 491 5498

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship To :

DART AEROSPACE LTD. 1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED
6/10/13

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	61341	D2741 BLADES	10/22/10 Yes	35.00	Purolator ground	\$10.8500	\$379.75

Special Inst: HARDEN MATERIAL AS PER DWG
D2741 REV. C
MINIMUM ULTIMATE TENSILE
STRENGTH = 152 KSI
MINIMUM YIELD TENSILE STRENGTH
= 141 KSI
(34-40 HRC)

PO Total:

\$379.75

CERTIFICATE OF CONFORMITY
REQ'D UPON DELIVERY

Change Nbr: 1

Change Date: 10/15/10

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC J7R 5A8
Tel: 450-473-1884 / Fax: 450-491-5498

Recu de Livraison

Order	Shipper	Shipping Seq.
161744	1	46681

Shipped Complete

Customer **215**
DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

Shipped To:
DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

Purchase Order Number	Customer Shipper No.	Material Type	Order Date	Carrier
PO12750		4130	2010/10/18	PURO

Quantity	Part No. / Part Name / Part Description	Pounds
35	D2741 BLADE REV: C	121,

2 BOITE DE CARTON EPS

Container Type	# Of Containers	Container Comments
	2	2 B.C EPS

CERTIFICAT REQUIS
EMBALLER PIECES SEPARMENT

PACKING	
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Quantity Shipped: 35
Pounds Shipped: 121,00
Quantity Remaining: 0
Pounds Remaining: 0,00

CERTIFICAT REQUIS
EMBALLER PIECES SEPARMENT

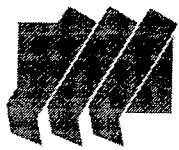
Quantity Shipped: 35

Pounds Shipped: 121,00

Signature:

Date:

Shipped ON: 2010/11/11

**METCOR INC.**560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC, J7R 5A8

Tel: 450-473-1884 / Fax: 450-491-5498

Certification

Order**161744****Load****1**Customer **215**DART AEROSPACE
1270 ABERDEEN
HAWKESBURY

ON K6A 1K7

Shipped To:DART AEROSPACE
1270 ABERDEEN
HAWKESBURY

ON K6A 1K7

1

Customer PO / PO du Client	Customer Shipper No.	Material Type / Material	Mat'l Heat Code	Lot Number
PO12750		4130		

PROCESSING SPECIFICATIONS

SEL HARDEN
HARDEN AND TEMPER
SAE AMS 2759/1 REV.E

Requirement	Specified	Tests Performed	Test Results
HARDNESS	34 - 40 HRC	35	38 - 40 HRC
TENSILE (KSI)	152 - 182 KSI		171 - 182 KSI

Quantity	Weight	Part Number / Part Description
35	121	D2741 BLADE REV: C 2 BOITE DE CARTON EPS

Operation	Specified Temp	Specified Soak Time	Atmosphere	Carbon Potential	Q-Media Q-Temp	Furnace# Load #	Start Date	Time In	Time Out	Date Complete
1.00 CONT. INIT.	LAVAGE		si nécessaire							
2.00 PREPARINC	COMPTAGE									
3.00 PREHEAT 1	1000	1:00 1:30	air							
4.00 SEL HARDE	1575	0:40	SEL		BRINE					
5.00 WASH	150	0:30	soap							
6.00 SNAP TEMF	400	2:00	air							
7.00 SANDBLAS			Sablage							
8.00 DIST INSP										



METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC, J7R 5A8

Tel: 450-473-1884 / Fax: 450-491-5498

Certification

Order	Load
161744	1

Customer 215

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY

ON K6A 1K7

Shipped To:

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY

ON K6A 1K7

Operation	Specified Temp	Specified Soak Time	Atmosphere	Carbon Potential	Q-Media Q-Temp	Furnace# Load #	Start Date	Time In	Time Out	Date Complete
9.00 TEMPER	875 +/-10°F	4 hrs	air							
10.00 TEMPER	900 +/-10°F	4 hrs	air							
11.00 HARDN INS										
12.00 SANDBLAS			Sablage							
13.00 HUILAGE			huile							
14.00 FINAL INSP							11-11-2010			11-11-2010

COMMENTS

ALL THE HEAT TREATMENT PROCESSING PERFORMED ON THIS ORDER WAS ACCOMPLISHED USING HEAT TREATMENT EQUIPEMENT THAT MEETS THE REQUIREMENTS OF AMS 2750. ALL THE HEAT TREATMENT OPERATIONS WERE ACCOMPLISHED IN ACCORDANCE WITH THE REQUESTED/REQUIRED HEAT TREATMENT SPECIFICATION AND ALL REQUIRED VERIFICATIONS TEST HAVE BEEN PERFORMED AND DOCUMENTED. NO UNAUTHORIZED CHANGES OR DEVIATIONS TO REQUIRED HEAT TREATMENT SPECIFICATIONS OR PROCEDURES HAVE BEEN PERFORMED.

APPROVED BY:

Jonathan Roger



DATE: 2010-11-12

We certify that all the information on this report is exact and in accordance with the order requirements. / Nous certifions que toute l'information comprise sur ce rapport est exacte et conforme aux requis du client.



Metcor Inc.
560, boul. Arthur-Sauvé
St-Eustache (Québec) J7R 5A8
Tél.: (450) 473-1884
Fax Administration: (450) 491-5498
Fax Production: (450) 491-8454

STANDARD
ARTICLE

STANDARD
ARTICLE

P.012750 ✓

9130

PROCESSING PRESCRIPTIONS

SEL HANDLER
HANDER AND TEMPER
SAE AMS 2700/i NEUR

34-40 HRC

35

152-182 KSI

171-182 KSI

35 Weight
121 02741
BLADE
REV.C

DATE OF LAST

REVISION

APPROVED

Signature



DATE: 2004-11-11

100

100

100

100
100
100

100

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